

LPDES PERMIT NO. LA0051764, AI No. 3483**LPDES STATEMENT OF BASIS**

FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

- I. Company/Facility Name:** Air Liquide Large Industries US LP
Air Liquide - Norco
P.O. Box 336
Norco, Louisiana 70079
- II. Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
- III. Prepared By:** Jenniffer Sheppard
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Date Prepared: July 10, 2008

IV. Permit Action/Status:**A. Reason For Permit Action:**

LDEQ proposes to reissue a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46.

- * In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC Chapter 33:IX. Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

- B. NPDES permit -** NPDES permit effective date: NA
NPDES permit expiration date: NA
EPA has not retained enforcement authority
- C. LPDES permit -** LPDES permit effective date: August 1, 2003
LPDES permit expiration date: July 31, 2008

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- D. Application received on March 18, 2008. Additional information received via e-mail on April 29, 2008, July 9, 2008, July 14, 2008, July 23, 2008, and October 23, 2008.

V. Facility Information:

- A. Location - 336 Cedar Drive off Airline Highway (Hwy 61) in Norco.

- B. Applicant Activity -

According to the application, Air Liquide Large Industries US LP, Air Liquide - Norco, is an air separation plant that takes atmospheric air, cleans and distills it. Through the use of cryogenic cooling processes, the air is separated into pure oxygen, nitrogen, and argon. The final product gases are shipped by truck and pumped by pipeline to Air Liquide's customers.

The current LPDES permit effective on August 1, 2003 includes discharges from two oxygen, nitrogen, and argon air separation plants (Plants #3 and #4). This permit is proposed to include discharges from two additional nitrogen and argon air separation plants (Plants #2 and #1).

- C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

<u>Guideline</u>	<u>Reference</u>
Inorganic Chemicals- Oxygen and Nitrogen Daily Production -	40 CFR 415.492
Oxygen =	2,384,928 lbs/day
<u>Nitrogen =</u>	<u>4,173,120 lbs/day</u>
Total	6,558,048 lbs/day

Other sources of technology based limits:

LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

Multi-Sector General Permit for Stormwater at Industrial Facilities, LAR050000.

Light Commercial General Permit, LAG480000.

Best Professional Judgment.

- D. Fee Rate -
1. Fee-Rating-Facility-Type: minor
 2. Complexity Type: II
 3. Wastewater Type: II
 4. SIC code: 2813

- E. Continuous Facility Effluent Flow - 0.210 MGD.

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- VI. Receiving Waters:** Engineers Canal, thence to Lake Pontchartrain (Outfalls 001 and 003) and An unnamed drainage ditch via local drainage, thence to Bayou Trepagnier, thence to Bayou Labranche (Outfall 002).

An unnamed drainage ditch via local drainage, thence to Bayou Trepagnier, thence to Bayou Labranche (Outfall 002) - Scenic.

1. River Basin: Lake Pontchartrain, Segment No. 041201

2. Designated Uses:

The designated uses are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and outstanding natural resource water.

Engineers Canal, thence to Lake Pontchartrain - Outfalls 001 and 003

1. TSS (15%), mg/L: 7.9

2. Average Hardness, mg/L CaCO_3 : 554.8

3. Critical Flow, cfs: 0.1

4. Mixing Zone Fraction: 1

5. Harmonic Mean Flow, cfs: 1

6. River Basin: Lake Pontchartrain, Segment No. 041001 (*)

7. Designated Uses:

The designated uses are primary contact recreation, secondary contact recreation, and fish and wildlife propagation.

- (*) This proposed discharge is physically located within Subsegment 041202, Bayou Trepagnier – Norco to Bayou Labranche. However, because Engineers Canal flows directly into Lake Pontchartrain and not into Bayou Trepagnier or Bayou Labranche, permit conditions for discharges in the Engineers Canal are protective of the next downstream subsegment 041001, Lake Pontchartrain – West of the Hwy 11 Bridge.

Information based on the following: Water Quality Management Plan and LAC 33:IX Chapter 11. Hardness and 15% TSS data come from monitoring station #2470 at Engineers Canal, 0.5 miles south of I-10 off of the East Spillway Levee. This information was presented to Jennifer Sheppard in a memo from Todd Franklin dated June 19, 2008 (See Appendix B).

VII. Outfall Information:

Outfall 001

A. Type of wastewater - the discharge of cooling tower blowdown and previously monitored effluent from Internal Outfall 101.

B. Location - at the point of discharge from the outlet of the effluent basin prior to combining with the waters of Engineers Canal at Latitude 30°01'13", Longitude 90°24'24".

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- C. Treatment - settling.
- D. Flow - Continuous, (estimated value) 0.210 MGD.
- E. Receiving waters - Engineers Canal via effluent pipe, thence to Lake Pontchartrain.
- F. Basin and segment - Lake Pontchartrain Basin, Segment 041001.

Internal Outfall 101

- A. Type of wastewater - the discharge of oily water separator water which includes process pad stormwater, process pad condensate, wastewater from the pad floor drains, and washdown water.
- B. Location - at the point of discharge from the oily water separator, prior to combining with the waters of Final Outfall 001, at Latitude 30°01'08", Longitude 90°24'22".
- C. Treatment - treatment of utility wastewaters and stormwater consists of:
 -oily water separator
- D. Flow - Continuous, (estimated value) 0.035 MGD.
- E. Receiving waters - Engineers Canal via Outfall 001 effluent pipe, thence to Lake Pontchartrain.
- F. Basin and segment - Lake Pontchartrain Basin, Segment 041001.

Outfall 002

- A. Type of wastewater - the discharge of non-process area stormwater runoff and washdown water.
- B. Location - at the point of discharge from the front ditch drain pipe in the southeast corner of the facility, prior to combining with the waters of Bayou Trepagnier, at Latitude 30°01'04", Longitude 90°24'21".
- C. Treatment - none.
- D. Flow - Intermittent.
- E. Receiving waters - Unnamed drainage ditch via effluent pipe, thence to Bayou Trepagnier, thence to Bayou Labranche.
- F. Basin and segment - Lake Pontchartrain Basin, Segment 041201.

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Outfall 003

- A. Type of wastewater - the discharge of non-process area stormwater runoff and washdown water.
- B. Location - at the point of discharge into the ditch at the west side of the property, prior to combining with the waters of Engineers Canal, at Latitude 30°01'10", Longitude 90°24'26".
- C. Treatment - none.
- D. Flow - Intermittent.
- E. Receiving waters - Engineers Canal via open ditch, thence to Lake Pontchartrain.
- F. Basin and segment - Lake Pontchartrain Basin, Segment 041001.

VIII. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development of permit limits are detailed in the Permit Limit Rationale section below.

Summary of Proposed Changes From the Current LPDES Permit:

- A. The wastewater type was identified in the current LPDES permit effective on August 1, 2003 as a Type III wastewater, defined at LAC 33:IX.1311.B as wastewaters including sanitary wastewater, boiler blowdown, recirculating cooling system blowdown, water treatment waters, and relatively uncontaminated surface run-off. In accordance with the regulations, wastewater Type II is the more appropriate wastewater type because the continuous process wastewater flows of 0.035 MGD from Internal Outfall 101 are greater than 10% of the total flow of 0.210 MGD at Final Outfall 001. Therefore, the wastewater type has been changed from a Type III to a Type II. This change will affect the fee rating worksheet points calculation, as described under LAC 33:IX.1313.
- B. Outfall 001 - the Subsegment was previously identified as 041201 for Bayou Labranche - From headwaters to Lake Pontchartrain. This Subsegment has been determined to be incorrect. Based on correspondence from the company regarding the specific path of discharge (Engineers Canal via effluent pipe, thence to Lake Pontchartrain) and the LDEQ Make-A-Map program, it has been determined that these discharges do not commingle with Bayou Lebranche. Because Engineers Canal flows directly into Lake Pontchartrain and not into Bayou Labranche, permit conditions for discharges in the Engineers Canal are protective of the next downstream subsegment 041001, Lake Pontchartrain - West of the Hwy 11 Bridge.

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- C. Outfall 001 - a new requirement to report the additives used in the cooling towers has been incorporated based on best professional judgment for data gathering purposes.
- D. Outfall 001 - a new requirement prohibiting the use of any additives or corrosion inhibitors containing any of the 126 priority pollutants has been added based on best professional judgment.
- E. Outfall 001 - quarterly freshwater chronic toxicity testing has been added to this outfall in accordance with the LDEQ/OES Permitting guidance Document for Implementing Louisiana Surface Water Quality Standards, EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies (Revised June 30, 2000), and best professional judgment of the reviewer.
- F. Outfall 001 - A water quality screen was performed in accordance with LDEQ's Water Quality Implementation Plan, Version 6, dated April 16, 2008 (See Appendices A-1 and A-2) to account for increased flows due to the increase in production and ensure protection of the receiving waterbody. No water quality based effluent limitations were established as a result of this screening.
- G. Internal Outfall 101 - daily production for oxygen and nitrogen has increased from 2,377,230 lbs/day to 6,558,048 lbs/day as a result of two additional oxygen, nitrogen, and argon air separation plants in service. Based on this increase in production, the Oil and Grease limitations have increased in accordance with the Inorganic Chemical Guidelines for Oxygen and Nitrogen Production listed at 40 CFR Part 415.492.
- H. Internal Outfall 101 - the monitoring frequency for Oil & Grease has been increased from 1/week to 3/week based on reported violations for this parameter (see compliance history section) and best professional judgment.
- I. Internal Outfall 101 - a COD limitation of 125 mg/L daily maximum has been established in lieu of the previously established limitations of 200 mg/L monthly average and 300 mg/L daily maximum. The revised limitation of 125 mg/L daily maximum is consistent with the requirements established for commingled stormwater and washwater in the Light Commercial General Permit, LAG480000.
- J. Outfall 003 - the Subsegment was previously identified as 041201 for Bayou Labranche - From headwaters to Lake Pontchartrain. This Subsegment has been determined to be incorrect. Based on correspondence from the company regarding the specific path of discharge (Engineers Canal via effluent pipe, thence to Lake Pontchartrain) and the LDEQ Make-A-Map program, it has been determined that these discharges do not commingle with Bayou Lebranche. Because Engineers Canal flows directly into Lake Pontchartrain and not into Bayou Labranche, permit conditions for discharges in the Engineers Canal are protective of the next downstream subsegment 041001, Lake Pontchartrain - West of the Hwy 11 Bridge.

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IX. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS

1. Outfall 001 - the discharge of cooling tower blowdown and previously monitored effluent from Internal Outfall 101.

The combined outfall contains the following limitations and monitoring requirements:

PARAMETER	MASS LBS/DAY unless otherwise stated		CONCENTRATION MG/L unless otherwise stated		MONITORING FREQUENCY
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow, MGD	Report	Report	---	---	1/day
Temperature, °F	Report	Report (inst. max)	---	---	1/week
Total Residual Chlorine (TRC)	---	---	---	0.2	1/month
Additives	---	---	Report	Report	1/month
pH, standard units	---	---	6.0 (min)	9.0 (max)	1/month

Site-Specific Consideration(s) for Outfall 001

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored 1/day and reported as an estimated value. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

Temperature - The monitor and report requirement has been retained from the current LPDES permit, effective on August 1, 2003 and was based on the requirements from the Light Commercial General Permit, LAG480000. The monitoring frequency of 1/week has also been retained.

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Total Residual Chlorine (TRC) - The 0.2 mg/L daily maximum limitation has been retained from the current LPDES permit, effective on August 1, 2003 and was based on the requirements in the Light Commercial General Permit. TRC shall be collected as a Grab Sample at a frequency of 1/month. The sample type of Grab and the monitoring frequency of 1/month has also been retained from the current LPDES permit, effective on August 1, 2003.

Additives - This requirement has been established based on BPJ for data gathering purposes. An inventory calculation including the type and quantity of additive shall be prepared 1/month and attached to the DMRs for this outfall on a quarterly basis.

PH - established in accordance with LAC 33:IX.1113.C.1. The sample type of Grab and monitoring frequency of 1/month has been retained from the current LPDES permit, effective on August 1, 2003.

2. Internal Outfall 101 -the discharge of oily water separator water which includes process pad stormwater, process pad condensate, wastewater from the pad floor drains, and washdown water.

Air Liquide Large Industries US LP, Air Liquide - Norco is subject to the Best Practicable Control Technology Currently Available (BPT) effluent limitation guideline listed below:

<u>Manufacturing Operation</u>	<u>Guideline</u>
Inorganic Chemical	
Oxygen and Nitrogen Production	40 CFR 415.492

The following requirements have been established for these wastewaters:

PARAMETER	MASS LBS/DAY unless otherwise stated		CONCENTRATION MG/L unless otherwise stated		MONITORING FREQUENCY
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow, MGD	Report	Report	---	---	1/week
Oil and Grease	6.56	13.12	---	---	3/week
COD	---	---	---	125	1/week
TSS	---	---	---	45	1/week

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Site-Specific Consideration(s) for Internal Outfall 101

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored 1/week and reported as an estimated value. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

Oil and Grease - The compressor condensate process wastewater is regulated by the federal guidelines at 40 CFR 415.492, Subpart AW. The guideline established is production-based monthly average and daily maximum oil and grease limits (0.001 and 0.002 pounds O&G/1000 pounds production, respectively). The oil and grease limits were based on the BPT limits in 40 CFR Part 415.492. Air Liquide's oil and grease limits for the plants now in service are established as follows:

Oxygen Production:

400,000 scfh/plant * 3 plants * 0.08281 lbs/ scf * 24 hrs/day = 2,384,928 lbs/day

Nitrogen Production:

800,000 scfh/plant * 3 plants * 0.07245 lbs/scf *24 hrs/day = 4,173,120 lbs/day

Total Production:

2,384,928 lbs/day (oxygen) + 4,173,120 lbs/day (nitrogen) = 6,558,048 lbs/day

Monthly Average Oil & Grease Limit:

0.001 lbs O&G * 6,558,048 lbs/day product/1,000 = 6.56 lbs/day

Daily Maximum Oil & Grease Limit:

0.002 lbs O&G * 6,558,048 lbs/day product/1,000 = 13.12 lbs/day

The sample type of Grab has been retained from the current LPDES permit. The monitoring frequency for Oil & Grease has been increased from 1/week to 3/week based on reported violations for this parameter (see compliance history section) and best professional judgment.

TSS - This limitation has been retained from the current LPDES permit, effective on August 1, 2003 and was based on the requirements of the Light Commercial General Permit for washdown waters. The sample type of Grab and the monitoring frequency of 1/week has also been retained.

COD - A limitation of 125 mg/L daily maximum has been established. This limitation is consistent with the requirements for commingled-stormwater and washwater in the Light Commercial General Permit, LAG480000. The sample type of grab and the monitoring frequency of 1/week has been retained from the current LPDES permit, effective on August 1, 2003.

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3. Outfalls 002 and 003 - the discharge of non-process area stormwater runoff and washdown water.

Utility wastewaters and uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the Light Commercial General Permit. The following requirements will apply to Air Liquide's Outfall 002 and Outfall 003 discharges:

PARAMETER	MASS LBS/DAY		CONCENTRATION MG/L		MONITORING FREQUENCY
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Flow, MGD	Report	Report	---	---	1/quarter
COD	---	---	---	125	1/quarter
Oil and Grease	---	---	---	15	1/quarter
pH, standard units	---	---	6.0 (min)	9.0 (max)	1/quarter

Site-Specific Consideration(s) for Outfalls 002 and 003

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored 1/quarter and reported as an estimated value. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

COD and Oil and Grease - These limitations have been retained from the current LPDES permit, effective on August 1, 2003 and were based on the Multi-Sector General Permit and the requirements of the Light Commercial General Permit. The sample type of Grab and monitoring frequency of 1/quarter has also been retained.

PH - established in accordance with LAC 33:IX.1113.C.1. The sample type of Grab and monitoring frequency of 1/quarter has been retained.

Additional Requirement for all Stormwater Outfalls

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance**, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of

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the effective date of the final permit. **For renewal permit issuance**, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

B. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix A.

In accordance with LAC 33:IX.2707.D.1/40 CFR § 122.44(d)(1), the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix A.

The following pollutants received water quality based effluent limits:

POLLUTANT(S)
None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

TMDL Waterbodies

Outfalls 001 and 003

The discharges including cooling tower blowdown, process pad stormwater, process pad condensate, wastewater from the pad floor drains, washdown water, and oily water separator water (Outfall 001) and stormwater runoff and washdown water (Outfall 003) are to Engineers Canal via effluent pipe, thence to Lake Pontchartrain. This discharge is physically located within Subsegment 041202, Bayou Trepagnier – Norco to Bayou Labranche. However, because Engineers Canal flows directly into Lake Pontchartrain and

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not into Bayou Trepagnier or Bayou Labranche, permit conditions for discharges in the Engineers Canal are protective of the next downstream subsegment 041001, Lake Pontchartrain – West of the Hwy 11 Bridge.

Subsegment 041001 is listed on the 2006 Final Integrated Report as impaired for pathogen indicators. A Total Maximum Daily Load (TMDL) is to be developed for Lake Pontchartrain watershed in order to address this existing water quality impairment. This TMDL is due to be issued by March 31, 2012.

Pathogen Indicators

Fecal coliform is found in discharges of sanitary wastewater and is common parameter used to identify the source of pathogen indicator impairments. Since there are no discharges of sanitary wastewaters into either Outfall 001 or 003, LDEQ has determined that there is no reasonable potential that these discharges would cause further pathogen indicator impairments in the receiving waterbody.

Outfall 002

The discharges include stormwater runoff and washdown water and are to an unnamed drainage ditch via local drainage, thence to Bayou Trepagnier, thence to Bayou Labranche, Segment No. 041201. This Subsegment is listed on the 2006 Final Integrated Report as being impaired with organic enrichment/low DO, nitrate/nitrite, and phosphorus. A TMDL is scheduled to be completed by March 31, 2012.

Organic Enrichment/Low DO

The analytical data from the application was reported as daily maximum values of <1.5 mg/L for BOD₅, 110 mg/L for COD, and 3.20 mg/L for TOC. Based on an assessment of this data and the type of discharge, LDEQ has determined that it is appropriate to retain the current 125 mg/L daily maximum for COD as previously established at Outfall 002. This limitation is consistent with the COD limitation for washwater in the Light Commercial General Permit, LAG480000 and has been determined adequate for the protection of the receiving waterbody.

Nitrate/Nitrite and Phosphorus

USEPA's 1997 document *Technical Guidance Manual for Developing TMDLs (Table A-17)*, describes median and mean phosphorus and nitrogen concentrations in wastewater effluents following four conventional treatment process. In this document, median total phosphorus concentrations after treatment falls between 5.2 and 6.6 mg/L and median total nitrogen concentrations fall between 11.5 and 22.4 mg/L. The values presented in the March 18, 2008 LPDES permit renewal application for Outfall 002 were 0.948 mg/L of total nitrogen and 0.165 mg/L of total phosphorus which are well below the median values presented for treated wastewater effluent in EPA's guidance manual. Therefore, based on the type of facility, types of discharges from this outfall, and analytical data provided in the application, it has been determined that stormwater and washwater from this outfall are not reasonably expected to cause further nitrate/nitrite and/or phosphorus impairments in the receiving waterbody.

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C. Biomonitoring Requirements

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall(s) 001 are as follows:

TOXICITY TESTS

FREQUENCY

Chronic static renewal 7-day
 survival and reproduction test
 using Ceriodaphnia dubia
 [Method 1002.0]

1/quarter

Chronic static renewal 7-day
 larval survival and growth test
 using fathead minnow (Pimephales
promelas) [Method 1000.0]

1/quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001, March 1989." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40

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CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 24%, 32%, 43%, 57%, and 76%. The low-flow effluent concentration (critical dilution) is defined as 76% effluent.

Site-Specific Consideration(s) for Air Liquide's Biomonitoring Requirements

Subsegment 041001 is listed in Table 3 (Numerical Criteria and Designated Uses) at LAC 33:IX.1123 as estuarine. However, based on correspondence between the LDEQ's toxicity testing reviewer and a Southeast Regional Office water technical advisor, the receiving waterbody for this facility should be characterized as freshwater. Therefore, chronic freshwater toxicity testing requirements have been established in this permit.

X. Compliance History/DMR Review:

A compliance history/DMR review was done covering the period of May 2001 to July 2008.

A. DMR Excursions Reported

DATE	OUTFALL	PARAMETER	MONTHLY AVERAGE		DAILY MAXIMUM	
			Reported Value	Permit Limit	Reported Value	Permit Limit
04/01/02	101	Oil & Grease	10.4 mg/L	10.0 mg/L(*1)	48.0 mg/L	15.0 mg/L(*1)
10/01/02	101	Oil & Grease	---	---	17.0 mg/L	15.0 mg/L(*1)
08/01/04	101	COD	No Sample Taken	200 mg/L	No Sample Taken	300 mg/L
08/01/04	001	TRC(*2)	---	---	0.9 mg/L	0.2 mg/L
09/30/04	001	TRC(*2)	---	---	1.2 mg/L	0.2 mg/L
10/01/04	001	TRC(*2)	---	---	1.1 mg/L	0.2 mg/L
01/31/06	003	COD	---	---	175 mg/L	125 mg/L
05/01/06	101	Oil & Grease	2.67 lbs/day	2.38 lbs/day	10.01 lbs/day	4.75 lbs/day
12/01/06	101	Oil & Grease	2.82 lbs/day	2.38 lbs/day	9.17 lbs/day	4.75 lbs/day
01/01/07	101	Oil & Grease	2.50 lbs/day	2.38 lbs/day	6.67 lbs/day	4.75 lbs/day
03/01/07	101	Oil & Grease	---	---	5.0 lbs/day	4.75 lbs/day

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DATE	OUTFALL	PARAMETER	MONTHLY AVERAGE		DAILY MAXIMUM	
			Reported Value	Permit Limit	Reported Value	Permit Limit
11/01/07	101	Oil & Grease	2.50 lbs/day	2.38 lbs/day	7.51 lbs/day	4.75 lbs/day
03/01/08	101	TSS (*3)	---	---	146 mg/L	45 mg/L

- (*1) These limitations were established in the July 10, 1990 LWDPs permit, WP0991.
- (*2) The TRC excursions were reviewed by Air Liquide and as a result, they installed a sodium bisulfite chlorine scavenger system on both cooling towers to maintain the maximum limitation of 0.2 mg/L TRC at Outfall 001.
- (*3) TSS excursion was reported to be caused from rust scales that pushed through the cooling lines when the idle plant was re-commissioned after six years.

B. Inspections

September 6, 2005 - Telephone assessment after Hurricane Katrina. Company representative indicated that the WWTP was operating and that the plant sustained no apparent damage due to the hurricane.

April 5, 2001 - The Last Compliance Evaluation Inspection noted several areas of concern. Thirteen excursions were reported from previous DMRs, there were several record keeping issues, and the company did not have a consistent formula to calculate rainfall for Outfall 002.

C. Enforcement History – There are no open enforcement actions for this facility.

XI. "IT" Questions - Applicant's Responses

Air Liquide is a minor facility, therefore, IT Questions were not required to be submitted.

XII. ENDANGERED SPECIES

Outfalls 001 and 003

The receiving waterbody, Subsegment 041001 of the Lake Pontchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Gulf Sturgeon and West Indian Manatee, which are listed as a threatened species. LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated 11/17/08 from Rieck (FWS) to Nolan (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Gulf Sturgeon and West Indian Manatee. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

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Outfall 002

The receiving waterbody, Subsegment 041201 of the Lake Pontchartrain Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated 11/17/08 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XIII. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XIV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to permit for the discharge described in the application.

XV. Variances:

No requests for variances have been received by this Office.

XVI. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

-----Local newspaper of general circulation-----

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